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west-vlaanderen
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Gov4Water

Public – private collaboration to buffer water against flooding and drought.

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Context

Area

West-Flanders

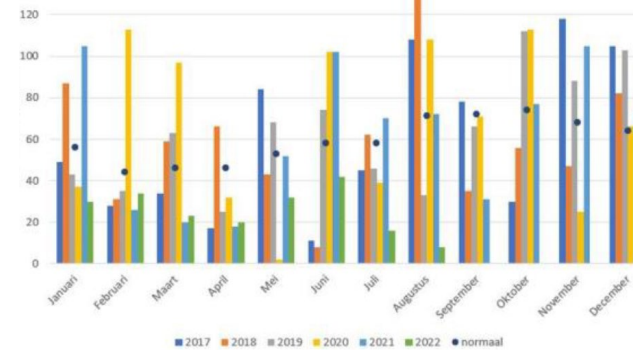
- 3650 km waterways
- "smaller" waterways
- water intensive agriculture



Drought

West-Flanders

- drought days increase by 40% by 2100
- hydrological drought increases by 80% by 2100
- agricultural drought increase by 300% by 2100



Flooding

West-Flanders

- peak discharges will occur every 10 instead of 50 years
- number of buildings at risk for flooding increase from 7,5% to 11%





“classic” approach

Large scale controlled flooding areas

- first priority = flood prevention
- overflow
- on provincial property → lands have to be acquired
- water storage below ground level → large quantities of soil must be removed
- multifunctional





Small scale controlled flooding area

Public private collaboration

- first priority = water storage
- overflow
- private storage → less transport movement
- multifunctional if possible
- on location of farmer → becomes owner for at least 20 years
- province designs and realizes storage + infrastructure
- disposal of removed soil → farmer





Small scale controlled flooding area

Required means

- interaction with farmer and project definition → field worker
- design + realisation storage and infrastructure → technical profile
- financial means → € 60.000 per project

Results

- 19.000 m³ protection against floods
- 24.000 m³ water storage
- less pumping (water nearby fields)





Small scale controlled flooding area

Transferability

- demand driven
- required budget comparable to bigger projects (/ m³)
- staff demand → time consuming when compared to 'own' projects
- mostly suitable for "upstream locations" and depending on geography
- based on design focus can easily change from storage to flooding prevention

